

### **AMENDMENTS TO THE SPECIFICATION**

Please amend page 1 by inserting the following paragraph below the Title of the Invention at line 3:

This application is a divisional of USSN 09/518,737, filed on March 3, 2000, now U.S. Patent 6,709,833, granted on March 23, 2004.

Kindly amend the two paragraphs appearing at page 7, lines 3-11 as follows:

Figures 7A - 7L ~~is~~ are photographs showing the results of immunostaining of PI-3,4-P2 induced by the H<sub>2</sub>O<sub>2</sub> treatment. The upper six photographs (Figures 7A - 7F) represent the case with no addition of wortmannine, and the lower six photographs (Figures 7G - 7L) the case with addition of wortmannine.

Figures 8A - 8H ~~is~~ are photographs showing the specificities of 8C2 determined by the competitive reaction with PI-3,4,-P2 analogs. Figures 8A and 8B represents the case with no competitive compound, Figures 8C and 8D the case with 50  $\mu$ M phosphatidylcholine, Figures 8E and 8F the case with 50  $\mu$ M PI-3,4,-P2, and G and H the case with 50  $\mu$ M PI-4,5,-P2.

At page 10, kindly amend line 4 as follows:

PI-4,5-P2      phosphatidylinositol-4,5-bisphosphate

At page 26, kindly amend lines 16- 22 as follows:

As a result, staining for PI-3,4-P2 was observed three and ten minutes after the H<sub>2</sub>O<sub>2</sub> treatment when wortmannin was not added prior to the induction of PI-3,4-P2 production by H<sub>2</sub>O<sub>2</sub> treatment, and the staining intensity increased with time. In contrast,

no staining of the cells was observed after the H<sub>2</sub>O<sub>2</sub> treatment when wortmannin was added, confirming that the antibody of the present invention is reactive with PI-3,4-P2. (Figs. 7A – 7L).

At page 26, kindly amend lines 23-31 as follows:

To examine the specificity of 8C2, phosphatidylcholine (PC), PI-3,4-P2, or PI-4,5-P2 was added to the culture medium of 293 cells and their effects on the immunoreaction were determined. As a result, PC and PI-4,5-P2 did not compete with PI-3,4-P2, and fluorescence produced by PI-3,4-P2 staining in the cells was observed. In contrast, fluorescence was not observed in the cells to which PI-3,4-P2 was added because the antibody was reacted with PI-3,4-P2 added (Figs. 8A - 8H). These results confirmed that the antibody of the present invention is specific to PI-3,4-P2.